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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/926,087 | 08/28/2001 | Ichiro Okajima | 213306US2PCT | 3965 |
| 22850 | 7590 | 12/02/2004 | EXAMINER | |
| OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | | HASHEM, LISA |
| ART UNIT | | PAPER NUMBER | | |
| | | 2645 | | |

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/926,087 | OKAJIMA, ICHIRO |
| | Examiner | Art Unit |
| | Lisa Hashem | 2645 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 28 August 2001.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-12 is/are rejected.
- 7) Claim(s) 3-5 and 8-12 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 28 August 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some *
 - c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the abstract should be in a single paragraph of 150 words or less. Correction is required. See MPEP § 608.01(b).
2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: 'A radio communication method for communicating between radio stations by a radio communication method that is suitable for communication applications'.

3. On page 9 of the Specification, memory unit is noted as reference character '32' instead of '31'. Correction is required.
4. On page 19 of the Specification, control unit is noted as reference character '40' instead of '42' and memory unit is noted as reference character '42' instead of '41'. Correction is required.

Claim Objections

5. The dependency of dependent claims 3, 5, and 8-12 are improper. Examiner assumes: claim 3 depends on claim 1, claim 5 depends on claim 3, and claims 8-12 depend on claim 6. Correction is required.
6. Claims 3-5 recite, 'a radio station of a local site'. This was not mentioned in the Specification. Therefore, Examiner assumes 'a radio station of a local site' to be equivalent to one of the radio stations recited in claim 1. Correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-3, 5-6, 8-10, and 12 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by U.S. Patent No. 6,671,509 by Tanaka et al, hereinafter Tanaka.

Regarding claim 1, Tanaka discloses a radio communication method of communication between two radio stations (see Figure 1), comprising: mutually exchanging information between said two radio stations about one or more radio communication methods with which each radio station is equipped as software by communicating according to a first radio communication method defined beforehand (column 2, lines 21-30; column 3, lines 8-37; column 6, lines 10-44); selecting a second radio communication method suitable as a communication application to be used for communication between said two radio stations from among the one or more radio communication methods with which at least one of the two radio stations is equipped based on the information about the one or more radio communication methods with which each radio station is equipped (column 3, lines 8-37); transmitting software of the second radio communication method from a radio station equipped with the second radio communication method (Figure 1, 2: base station) to a radio station which is not equipped with the second radio communication method (Figure 1, 12: mobile station) according to said first radio communication method, when only one of said radio stations is equipped with the second radio

communication method (column 6, lines 45-65); and conducting communications between said two radio stations by the communication application according to said second radio communication method based on said software (column 7, lines 52-61; column 8, lines 25-39).

Regarding claim 2, wherein Tanaka further discloses the radio communication method as claimed in claim 1, comprising selecting a radio communication method that satisfies communication quality required by said communication application as the second radio communication method (column 7, lines 3-15; column 8, lines 9-19; column 8, line 56 – column 9, line 3).

Regarding claim 3, wherein Tanaka further discloses the radio communication method as claimed in claim 1, comprising checking whether both of the radio stations are equipped with said second radio communication method or only one of a radio station of a local site (base station) and a radio station (mobile station) to communicate with is equipped with said second radio communication method (column 7, lines 28-35); and transmitting the software of said second radio communication method from the radio station of a local site to the radio station to communicate with when the radio station of a local site determines that only the radio station of a local site is equipped with said second radio communication method (column 7, lines 36-51).

Regarding claim 5, wherein Tanaka further discloses the radio communication method as claimed in claim 3, wherein the radio station of a local site performs communications by said communication application according to the second radio communication method based on the software installed in the radio station of a local site when the radio station of a local site determines that the second radio communication method is provided in both the radio stations (column 7, lines 47-51; column 8, lines 35-39).

Regarding claim 6, Tanaka discloses a radio station that communicates with another radio station by a communication application according to a radio communication method by controlling radio communication means that comprises hardware that is independent of radio communication methods (see Figure 1; column 2, line 21-39), comprising: memory means to store one or more sets of software of radio communication methods; information exchange control means to mutually exchange information about a radio communication method installed as software by communicating according to said first radio communication method defined beforehand (column 6, lines 11-26); radio communication method selection means to determine a radio communication method suitable for said communication application from radio communication methods available in at least one of the radio station and said another radio station as the second radio communication method based on said information about the radio communication methods available at the radio station and said another radio station (column 3, lines 8-37; column 6, lines 57-65); checking means to check whether said second radio communication method is installed in both the radio station and the other radio station or only one of the radio station and the other radio station (column 7, lines 28-35); and software transmitting control means to read the software of said second radio communication method from said memory means and transmit the same to said another radio station by said first radio communication method when the radio station determines that said second radio communication method is installed only at the radio station in said checking means, wherein communication with the other radio station by said communication application according to said second radio communication method is conducted by controlling said radio communication means based on the software of said second radio communication method after transmission of the software of

said second radio communication method to the other radio station by said software transmission control means (column 7, lines 44-61; column 8, lines 25-39).

Regarding claim 8, wherein Tanaka further discloses the radio station as claimed in claim 6, comprising controlling said radio communication means based on said software by reading the software of said second radio communication method from said memory means when said second radio communication method is determined available in both the radio station and the other radio station by said checking means (column 7, lines 47-51; column 8, lines 35-39).

Regarding claim 9, wherein Tanaka further discloses the radio station as claimed in claim 6, wherein said radio communication method selection means selects a radio communication method that will satisfy the communication quality that said communication application requires as the second radio communication method suitable for the communication application concerned (column 7, lines 3-15; column 8, lines 9-19; column 8, line 56 – column 9, line 3).

Regarding claim 10, wherein Tanaka further discloses the radio station as claimed in claim 6, which is used as a mobile station or a base station in a mobile communications system (Figure 1, 2; column 6, lines 11-26).

Regarding claim 12, wherein Tanaka further discloses a mobile communication system, comprising two or more radio stations as claimed in claim 6, each of which functions as one of a mobile station, a relay station, and a base station (Figure 1: 2, 12; column 6, lines 11-44).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,671,509 by Tanaka, as applied to claim 1, in further view of U.S. Patent No. 5,864,300 by Cho et al, hereinafter Cho.

Regarding claim 4, wherein Tanaka further discloses the radio communication method as claimed in claim 3, wherein the radio station of a local site acquires the software of said second radio communication method transmitted from a public exchange network (Figure 1, 1) when the radio station of a local site determines that only the public exchange network is equipped with said second radio communication method (see Abstract; column 6, lines 45-56).

Tanaka does not disclose the radio station of a local site acquires the software of said second radio communication method transmitted from the radio station to communicate with when the radio station of a local site determines that only the radio station to communicate with is equipped with said second radio communication method.

Cho discloses a wireless communication method of communication between two wireless stations or devices (see Figure 1), comprising: mutually exchanging information between said two stations about one or more wireless communication methods with which each station is equipped as software by communicating according to a wireless communication method (column 3, lines 45-52); selecting a communication application to be used for communication between

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said two wireless stations from among the one or more wireless communication methods with which at least one of the two wireless stations is equipped (column 3, lines 52-55); and transmitting software of the wireless communication method from a wireless station equipped with the wireless communication method (Figure 2) to a wireless station according to said wireless communication method, when only one of said wireless stations is equipped with the wireless communication method (column 3, lines 55-67). Wherein the transmitting wireless station can acquire or receive the software of said wireless communication method transmitted from the wireless station to communicate with when the transmitting wireless station determines that only the wireless station to communicate with is equipped with said wireless communication method (column 1, lines 16-25; column 3, lines 37-67).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the radio communication method of Tanaka to include acquiring the software from the radio station to communicate with as taught by Cho. One of ordinary skill in the art would have been lead to make such a modification since both radio stations can receive software from each other depending on which station is equipped with said software.

11. Claims 7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,671,509 by Tanaka, as applied to claim 6, in further view of U.S. Patent No. 5,864,300 by Cho.

Regarding claim 7, please see the rejection of claim 4 above, to reject the radio station in claim 7.

Regarding claim 11, wherein Tanaka further discloses the radio station as claimed in claim 6, which is used as a base station in a mobile ad hoc communication system (Figure 1, 2; column 6, lines 11-26).

Tanaka does not disclose the radio station that initially transmits software is used as a mobile station.

Cho discloses a wireless or mobile station that communicates with another wireless or mobile station by a communication application according to a radio communication method by controlling radio communication means that comprises hardware that is independent of radio communication methods (see Figure 2; column 1, lines 16-25), comprising: memory means to store one or more sets of software of wireless communication methods; information exchange control means to mutually exchange information about a wireless communication method installed as software by communicating according to said wireless communication method; wireless communication method selection means to determine a wireless communication method suitable for said communication application from wireless communication methods available in at least one of the wireless station and said another wireless station as the wireless communication method based on said information about the wireless communication method available at the wireless station and said another wireless station; checking means to check whether said wireless communication method is installed in both the wireless station and the other wireless station or only one of the wireless station and the other wireless station; and software transmitting control means to read the software of said wireless communication method from said memory means and transmit the same to said another wireless station by said wireless communication method (column 3, line 21-39).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the radio station of Tanaka to include a wireless or mobile station that is used as a radio station as taught by Cho. One of ordinary skill in the art would have been lead to make such a modification since the radio station can be a mobile or wireless station in a mobile communication system, wherein the mobile station can initially transmit software to another radio station.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- U.S. Patent No. 6,029,065 by Shah discloses a base station of a wireless network determines what features a mobile station will support and then downloads information to the mobile station which will notify the mobile station which network features are available and how they may be accessed in the local network

13. Any response to this action should be mailed to:

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Or faxed to:

(703) 872-9314 (for formal communications intended for entry)

Or call:

(703) 306-0377 (for customer service assistance)

Hand-delivered responses should be brought to: Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa Hashem whose telephone number is (703) 305-4302. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (703) 305-4895. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

LH

lh
November 24, 2004

FAN TSANG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

